System Acquisition through Milestone B

Your Financial Partner @ Work

DFAS-DTC
SLC Seminar 2002 & 2003

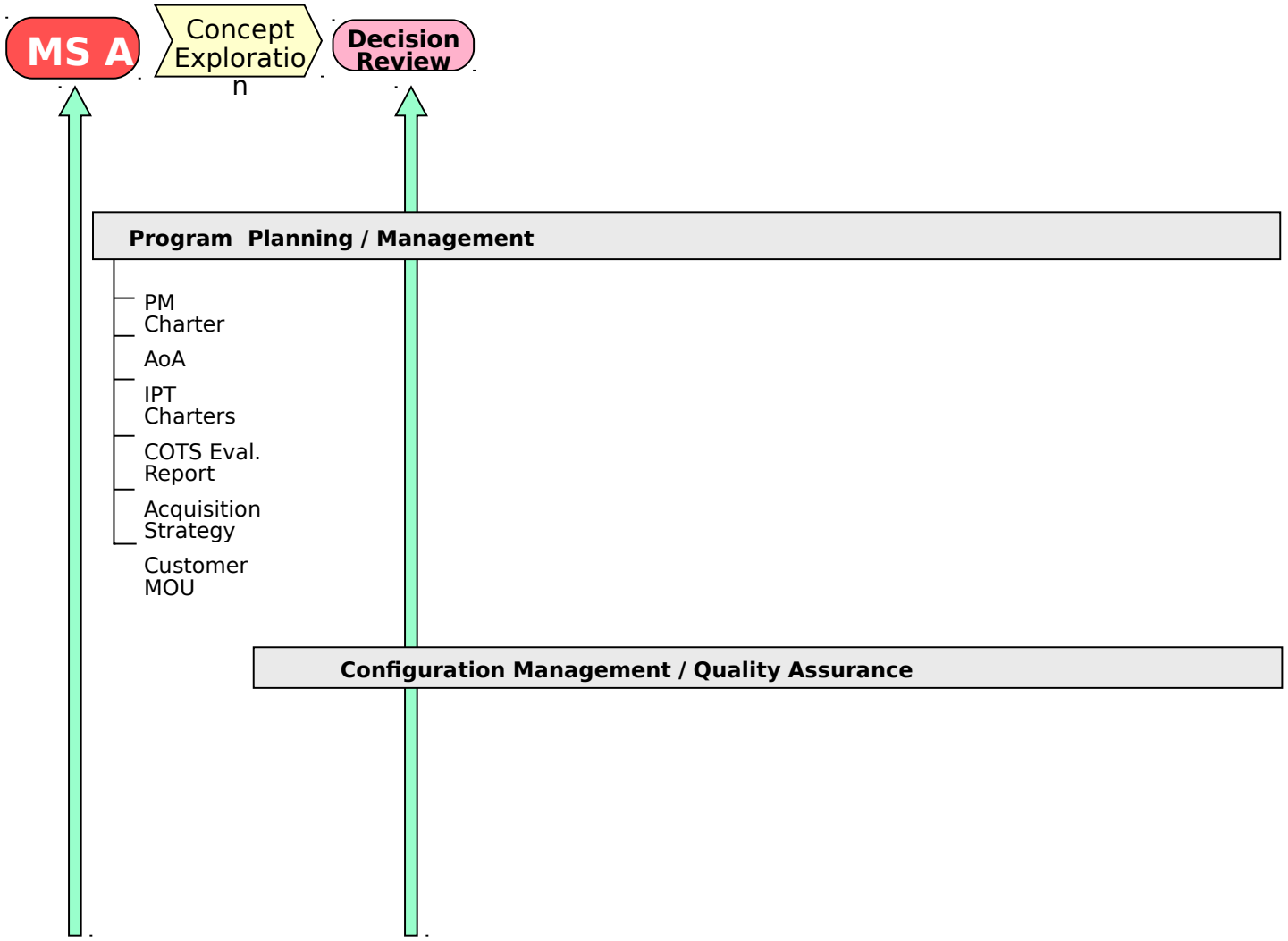
Concept & Technology Development

- **Concept Exploration**
  - **Program Planning/Management**
- **Component Advanced Development**
  - **Program Planning/Management**
  - **Operational Requirements Definition**
  - **System Requirements Analysis**
  - **System Architecture Design**
  - **Configuration Management / Quality Assurance**
  - **Information Assurance/Security**
- **Milestone B Review**

Concept Exploration

- **What's Done in this Phase:**
  - Select Program Manager and prepare PM Charter
  - Define requirements in broad operational capability terms.
  - Perform cost, schedule, functionality trade-offs
  - Evaluate COTS & GOTS products
  - Consider integration strategy with DCII
  - Analyze alternative acquisition approaches, including COTS, GOTS, modifying an existing system, ad new development.
  - Tailor the DFAS system life cycle to meet project needs
- **Concludes with:**
  - **Decision Review**

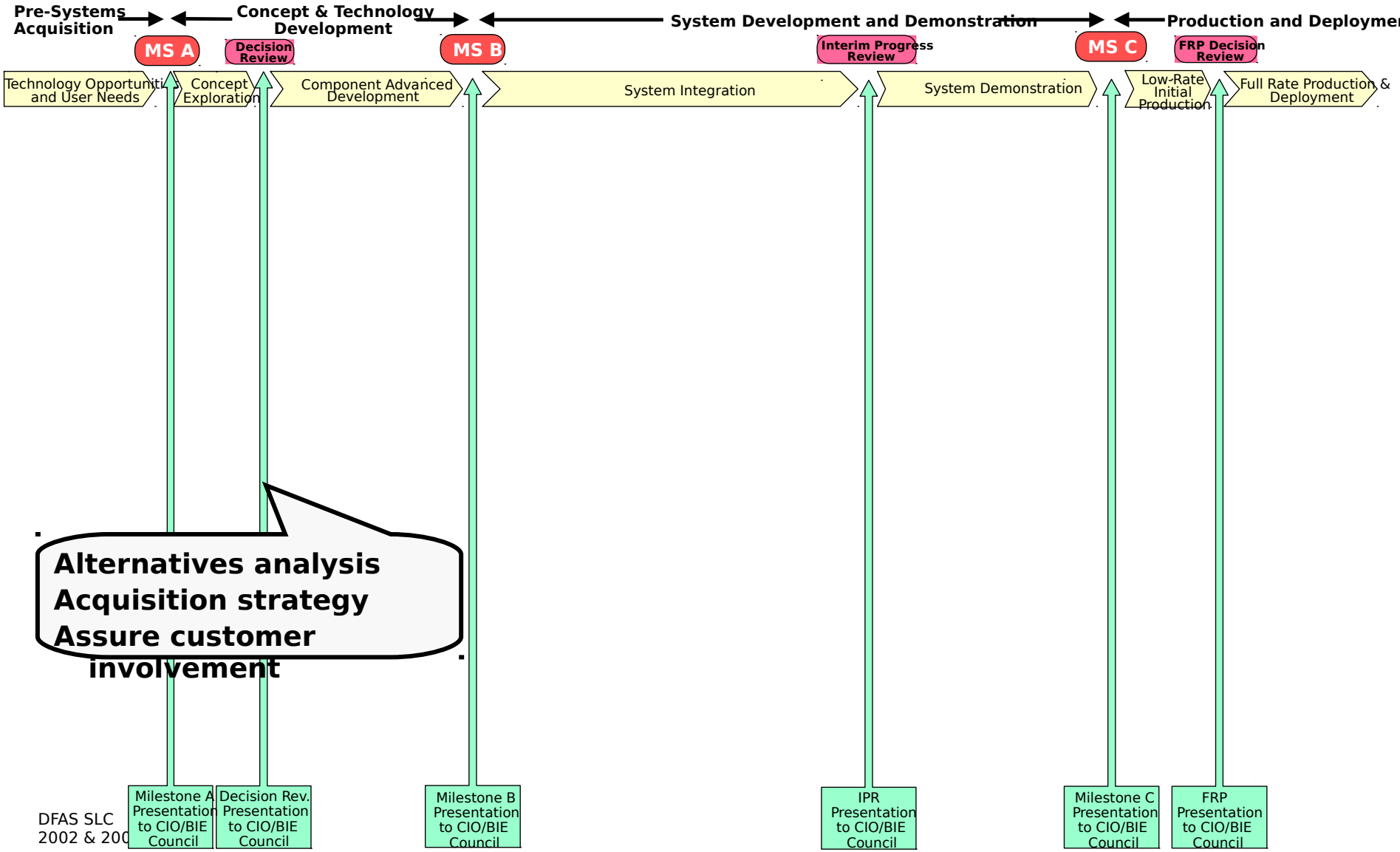
Concept Exploration Leads to the Decision Review



Program Planning/Management (1)

- Appoint Program Manager
- Perform COTS Availability Research
- Perform COTS Evaluation
- Analyze Acquisition and Implementation Alternatives
- Determine Acquisition Strategy
- Determine Life Cycle Strategy
- Establish Integrated Product Teams
- Maintain Customer Relationship
- Conduct Decision Review

Decision Review



Decision Review

- Has sufficient analysis has been performed on alternative acquisition approaches?
- Is recommended alternative the best for DFAS?
- Is the tailored life cycle appropriate for the system (meets
  MDA risk profile)?
- Have customer MOUs been prepared and co-signed by customer?
- Is/was customer involved in requirements definition?
- Were actual expenditures consistent w/ estimates?
- Are risks anticipated and mitigation planning done?
- Is all required documentation prepared and approved?

Decision Review: Conclusion

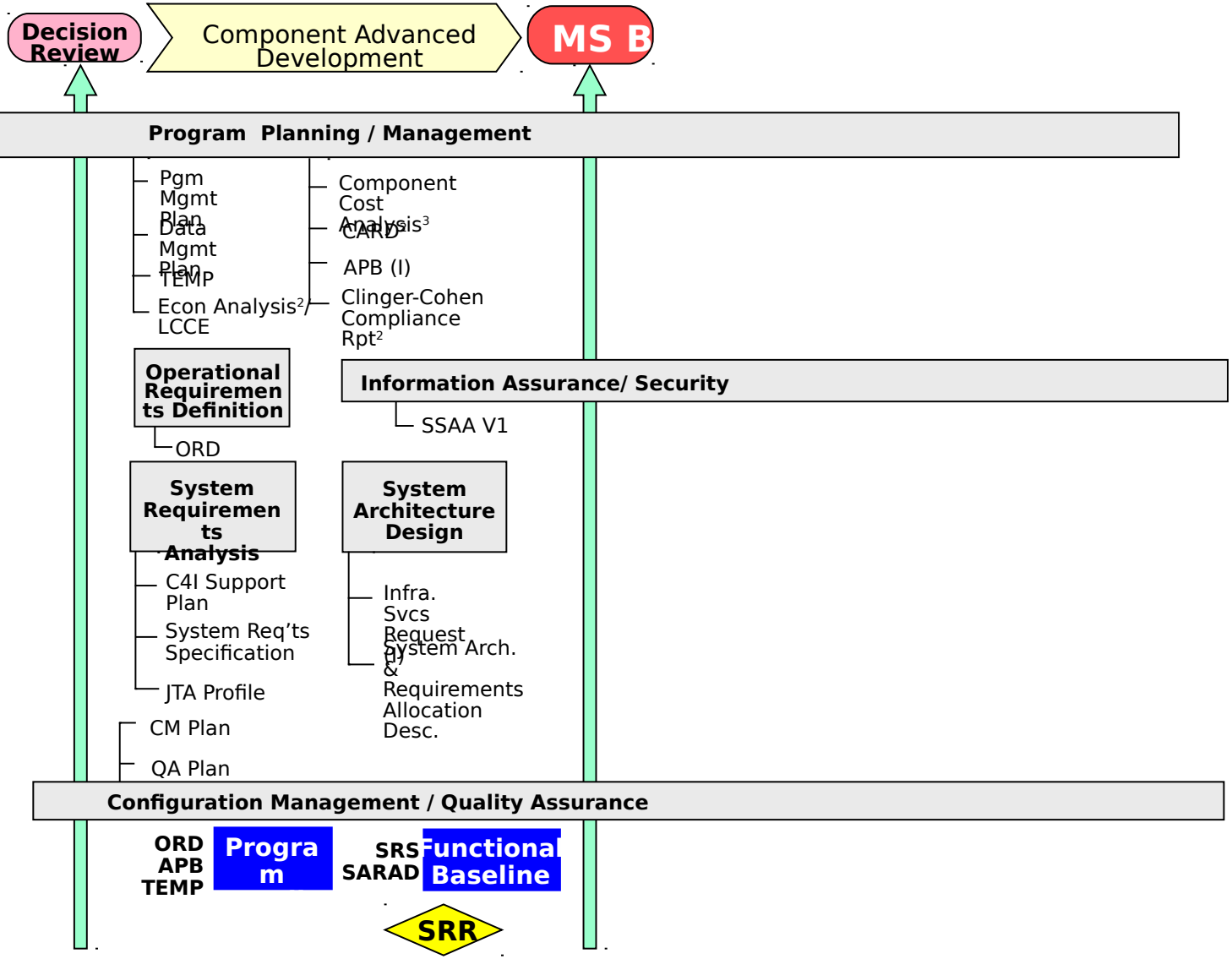
- *MDA decides whether to:*
  - *Continue the project or program,*
  - *Modify the project or program, or*
  - *Terminate the project or program.*

- *MDA issues the System Decision Memorandum*

Component Advanced Development

- **What's Done in this Phase:**
  - Define operational requirements
  - Plan program (cost estimates, schedule)
  - Define information assurance requirements and plan
  - Define detailed system requirements
  - Define system architecture
  - Define release strategy
  - Perform CM & QA planning
  - Request infrastructure services
  - For COTS: Develop SOW
- **Concludes with:**
  - **Milestone B Review**

Component Advanced Development Leads to Milestone B



Program Planning/Management (2a)

- Establish Project Support
- Determine Program Management Plans
- Determine Integration Management Plans
- Prepare Cost Analysis Requirements Description
- Perform Funds Allocation and Execution
- Estimate Life Cycle Resources
- Perform Economic Analysis/Cost-Benefit Analysis
- Establish Data Standardization Strategy
- Establish Test and Evaluation Strategy
- Establish Risk Management Strategy

More...

Program Planning/Management (2b)

- Develop Program Objective Memorandum (POM)
- Develop Budget Submissions
- Establish/Maintain Acquisition Program Baseline
- Perform Release Planning
- Plan Clinger-Cohen Act Compliance
- Manage Program Acquisition
- Establish Program Quality Assurance Strategy
- Manage Program Baseline

Operational Requirements Definition

– Define Operational Requirements

System Requirements Analysis (1)

- Identify User/Customer Organizations *
- Prepare C4I Support Plan
- Define Functional Requirements *
- Define Information Assurance/Security Requirements *
- Define External Interface Data Requirements *
- Define Systems Operations Requirements *
- Define Human Factors Requirements *
- Define Environmental Requirements *
- Define External Design Constraints *
- Define Internal Data Requirements *

More...

* repeated for each

System Requirements Analysis (2)

- Determine System Access Requirements *
- Define Software Distribution and Installation Requirements *
- Define Personnel and Logistics Requirements *
- Define Quality Requirements *
- Determine Business Performance Requirements -- System Requirements Analysis *
- Determine Capacity Requirements *
- Develop Joint Technical Architecture(JTA) Profile *
- Perform System Requirements Review (SRR) *

* repeated for each

System Architecture Design

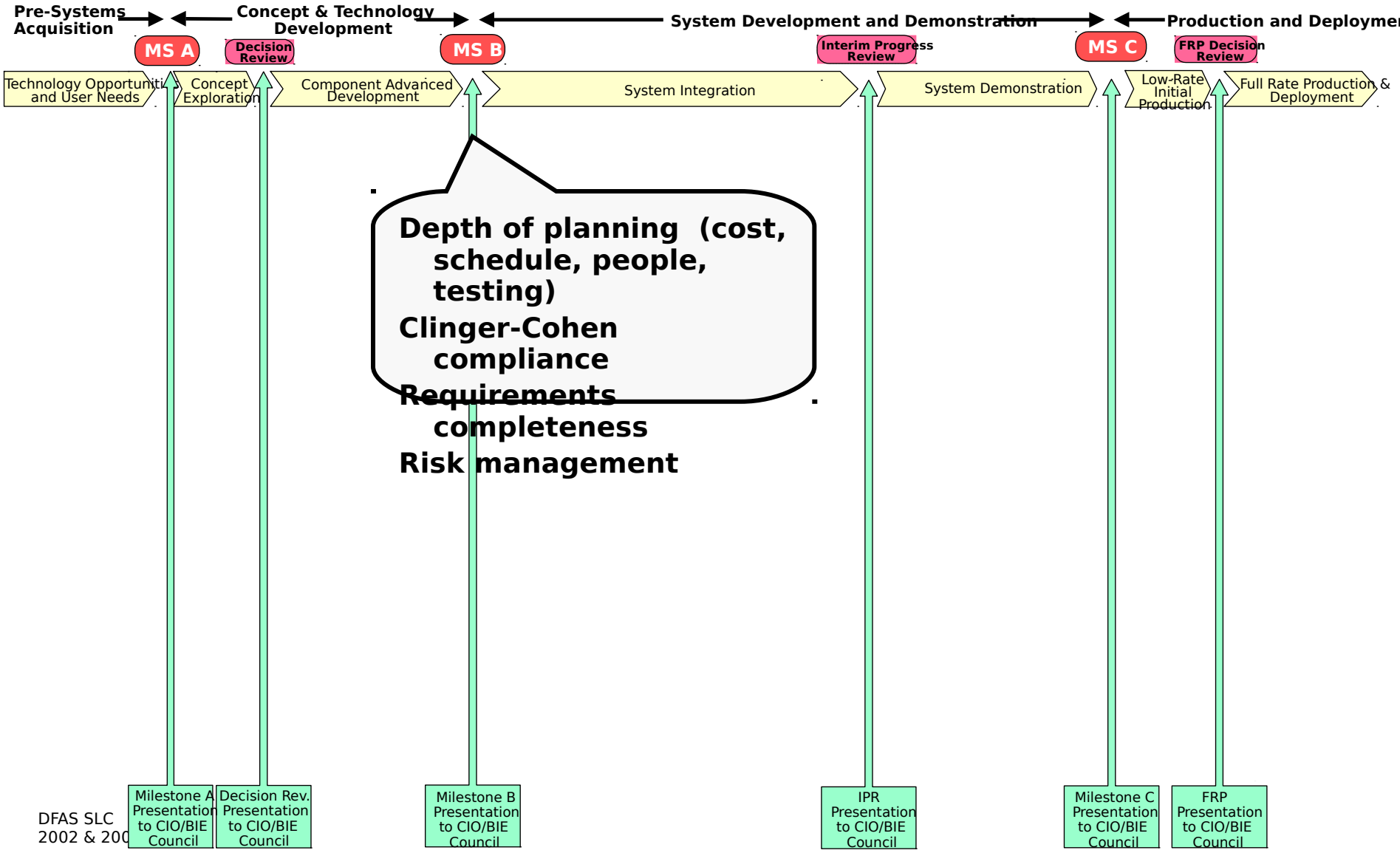
- Define Application Systems Architecture *
- Define and Establish System Security Architecture *
- Conduct Technical Architecture Review *
- Establish Development Environment *
- Integrate Execution Environment Requirements *
- Establish Execution Environment *

* repeated for each

Information Assurance/Security (1)

- Conduct DITSCAP Phase 1, Definition

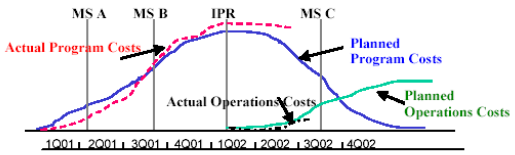
Milestone B


Pre-Systems Acquisition
Concept & Technology Development
System Development and Demonstration
Production and Deployment
MS A
Decision Review
MS B
Interim Progress Review
MS C
FRP Decision Review
Technology Opportunities and User Needs
Concept Exploration
Component Advanced Development
System Integration
System Demonstration
Low-Rate Initial Production
Full Rate Production & Deployment
Depth of planning (cost, schedule, people, testing)
Clinger-Cohen compliance
Requirements completeness
Risk management
Milestone A Presentation to CIO/BIE Council
Decision Rev. Presentation to CIO/BIE Council
Milestone B Presentation to CIO/BIE Council
IPR Presentation to CIO/BIE Council
Milestone C Presentation to CIO/BIE Council
FRP Presentation to CIO/BIE Council

Milestone B Briefing

7. Cost and Benefits Estimate.

- Summary Costs. *In a chart similar to below, provide a table and chart showing costs and benefits by year and milestone, updated from the Decision Review Brief. Explain any changes in cost or benefits estimates from previous management review.*



Program Costs FY	Prior Yrs	02	03	04	05	To Comp	Total
Capital - Plan/Budget							
Capital - Actual							
Operating - Plan							
Operating - Actual							
Operations Costs							
Capital - Plan							
Capital - Actual							
Operating - Plan							
Operating - Actual							
Total Planned Costs							
Total Actual Costs							
Benefits							

- Return on Investment. *Show the costs, benefits, net present values, payback period, and ROI values in a table similar to below. These can be calculated automatically using the DFAS ROI-NPV spreadsheet.*

Future Costs*				Future Benefits*		Net Present Value* (Unadjusted)	Net Present Value* (Risk-adjusted)	Payback Period (Years)	Return on Investment			
Unadjusted		Risk-Adjusted										
Nominal	Present Value	Nominal	Present Value	Nominal	Present Value				Savings-to-Cost (unadj.) Ratio	Savings-to-Invest't Ratio	Benefits-to-Cost (unadj.) Ratio	Internal Rate of Return
$12,000	$10,775	12,500	11,260	$27,000	$21,365	$10,590	$10,105	7	1.6	2.4	2.0	20%

- Detailed Costs. *In a table similar to below, show approved estimated costs (from LCCE or other approved document) for major cost categories by year. For "Previous Years", show actual expenditures. In the table, below the "Total Cost Estimate" line, show "Approved Funding" amounts and "Unfunded" amounts. The cost categories listed below are examples only, and should track to a Program's work breakdown structure. Highlight any changes from the previous management brief.*

Cost Category	Previous Years	Current Year	Year + 1	Year + 2	Year + 3	To Completion
PMO Operations						
Req'ts Gathering/Analysis						
Information Assurance						
TSO Cost						

Cost Category	Previous Years	Current Year	Year + 1	Year + 2	Year + 3	To Completion
COTS Product Purchase/Support						
Training						
Network Infrastructure (DISA)						
Development Testing						
Operational Test and Evaluation						
Maintenance						
TOTAL COST ESTIMATE						
APPROVED FUNDING						
UNFUNDED						

- *Identify major cost drivers*
- *Discuss results/issues from Component Cost Analysis (CCA), if performed*

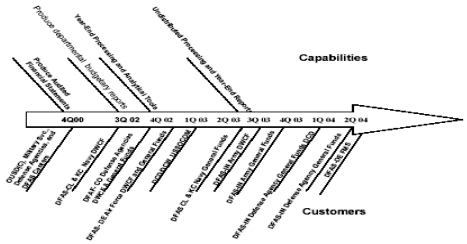
8. Affordability/Funding Status.

- *Show funding types, amounts and sources*
- *Show requested and actual amounts for President's Budget and Program Objective Memorandum (POM)*

9. Schedule.

- *In a table similar to below, list major milestones, their originally planned completion dates, and either their actual completion dates (for completed tasks) or, if relevant, a revised completion date. Milestones shown are examples only.*

Milestone	Original Completion Date	Revised Estimated Completion Date	Actual Completion Date
Requirements Analysis			
Milestone B			
Development – Release 1			
Development Test and Evaluation – Release 1			
Development – Release 2			
Development Test and Evaluation – Release 2			
Milestone C			
Operational Test and Evaluation			
Initial Operational Capability			
FOC			



Milestone B (1)

- Are operational and system architectures defined?
- Are requirements sufficiently defined?
- Is/was customer involved in requirements definition?
- Are performance measures sufficiently defined?
- Have system interfaces been defined and agreed?
- Are detailed (bottom-up) cost estimates credible?
- Is ROI computed? Does it support continuation?
- Is development schedule realistic? Meet customer needs?
- Is release strategy known (what capabilities to what customers in what time frames)?
- Is Program compliant with Clinger-Cohen Act?
- Has transition to new busimess process & system been planned?

Milestone B (2)

- Are risks anticipated and mitigation planning done?
- Are there any user or customer issues?
- Is all required documentation prepared and approved?
- For COTS acquisition, has sufficient evaluation been done to award a COTS purchase?
- For development, has sufficient planning been done so that engineering development begin?

Milestone B: Conclusion

- *MDA decides whether to:*
  - *Continue the project or program,*
  - *Modify the project or program, or*
  - *Terminate the project or program.*

- *MDA issues the System Decision Memorandum*
  - A successful Milestone B initiates an acquisition program